



Something For Christmas For The Kid Who Already Has Everything... Almost!

Is your son tired of his erector set? His chemistry set? How about getting him an honest-to-goodness mini-atom smasher. Order now and you can have it delivered by next Christmas. The cost? A mere \$280,000—before taxes.

As soon as your son pulls off the wrappings, he'll know he has an "isochronous azimuthally varying field cyclotron for use as an intense source of energetic hydrogen and helium nuclei."

In this day and age of the mini-skirt, it is not surprising that scientists and engineers are interested in developing miniaturized and sophisticated machines. Such has been the case at the Atomic Energy Commission's Lawrence Radiation Laboratory at Berkeley, California. University of California scientists there, as a result of research to perfect methods for identifying minute quantities of material through a process known as activation analysis, developed a 27-inch "sector-focused" cyclotron.

The small and relatively inexpensive table-model atom smasher—some of the bigger models cost hundreds of millions of dollars—was developed to accelerate light helium nuclei for use in activation analysis. The machine has proved especially valuable for detecting and measuring extremely small amounts of light elements such as oxygen, carbon, and nitrogen. And the technique has important applications in industry, medicine, biology, space research, and criminology.

Dr. Glenn T. Seaborg, AEC Chairman, explains that there are certain radioactive forms of various elements—known as radioisotopes—which are extremely valuable

for use in medicine. But these isotopes exist for such a brief time that it has been difficult to apply them in medical practice.

"Such radioisotopes often can be produced only in atom smashers," Dr. Seaborg points out, "and are now becoming more available as the result of the commercial sale of compact and relatively inexpensive cyclotrons."

The mini-cyclotron as a Christmas present is farfetched, but it does exist with one firm in Berkeley now manufacturing the units for sale as off-the-shelf items to hospitals, and to research and training institutions.

Compact cyclotrons have been installed already at Memorial Sloan Kettering Cancer Center, New York City, and at Argonne Cancer Research Hospital, near Chicago.

Columbium Mines Opened In Congo

Plans for the development of a columbium ore body . . . pyrochlore . . . in the Democratic Republic of the Congo, Kinshasa, have been announced by Birny Mason Jr., chairman of the board of Union Carbide Corporation.

The deposit, located at Bingo in Kivu Province, will be operated by Societe Miniere Union Carbide—Somikuri "SOMUCAR", a joint venture of Union Carbide, Belgian interests and the government of the Democratic Republic of the Congo. An agreement was signed with the government last September covering the mining of pyrochlore and other minerals at Bingo in accordance with provisions of the Republic's incentive program to encourage foreign investment.

Expected to be in production early in 1970, the Bingo operation will be capable of supplying a significant portion of the growing world columbium market. The columbium ore will go mainly into the production of columbium additives employed in the manufacture of high temperature alloys, stainless steels and high strength, low alloy steels for applications in four major industries: transportation, including aircraft; heavy machinery; industrial construction; and chemical equipment.

CHLORINE FACTS

More than nine-tenths of the 35 billion gallons of drinking water consumed daily in the United States and Canada depend on chlorine for purity and safety. Had chlorine never been discovered, the world might still be boiling much of its drinking water . . . or 'enjoying' plagues and epidemics like they had in the dark ages.

Shipley Promotion Made In Alpha Five

Alpha Five Processing, Metal Preparation Division, announces the promotion of Albert E. Shipley to process foreman. The promotion was made effective September 1.

Shipley, a native of Knoxville, lives at Route 3, Madora Drive, Powell. He has served two enlistments in the U.S. Navy and attended the University of Tennessee, the Tennessee Institute of Electronics and the Fulton Vocational School, after graduating from Rule High School.

He was employed at the Power Equipment Company, the Rex Tinker Metal Company, and worked for his father in the South Knoxville Sheet Metal Works before coming here June 11, 1962.

He lives at Powell with his family . . . Mrs. Shipley is the former Shirley Owens. They have four children . . . Steve and Sherry, in Powell High School; Terry in Rickey Elementary School, and Gary, born in August, still at home, naturally.

Shipley has a workshop at home that consumes most of his time. He and his family are active in the First Evangelical Methodist Church in Knoxville. He also fools around on the guitar, strictly for his own entertainment, he adds.

Most Fires Can Be Prevented!

Each and every day fires in the United States claim an average of: 33 lives, 1,510 homes, 167 apartments, 23 schools, 10 churches, 21 hospitals and nursing homes, 149 farm buildings, 126 industrial plants and 208 stores, restaurants and offices. Most of these can be prevented!

6-14520



Albert E. Shipley

K-25 Overlook Is New Attraction

The renovated Visitor's Overlook at K-25 has attracted more than 2,100 guests — about 300 a week — since its opening in July. The gaseous diffusion plant features the overlook on the highway east of the plant.

Visitors from 38 states and 12 foreign countries have signed the guest log, which is one of the additions to the Overlook. Other features of the facility include a taped message, displays, and a new "Visitor Information" pamphlet which describes the role of the gaseous diffusion plants — and other AEC facilities operated by the Nuclear Division — in meeting the nation's nuclear energy needs.

Foreign nations represented in the log include Saudi Arabia, Austria, Canada, Nationalist China, Great Britain, West Germany, Guatemala, Israel, New Zealand, Switzerland and Venezuela.

Major facilities at the K-25 plant are identified on a large aerial map in the Overlook. The taped message explains various aspects of the production of enriched uranium.

Visitors also are urged to see the Oak Ridge Graphite Reactor, a national historic landmark at Oak Ridge National Laboratory, and the American Museum of Atomic Energy.

Max-Plank's Ball Is Thernuclear Guest

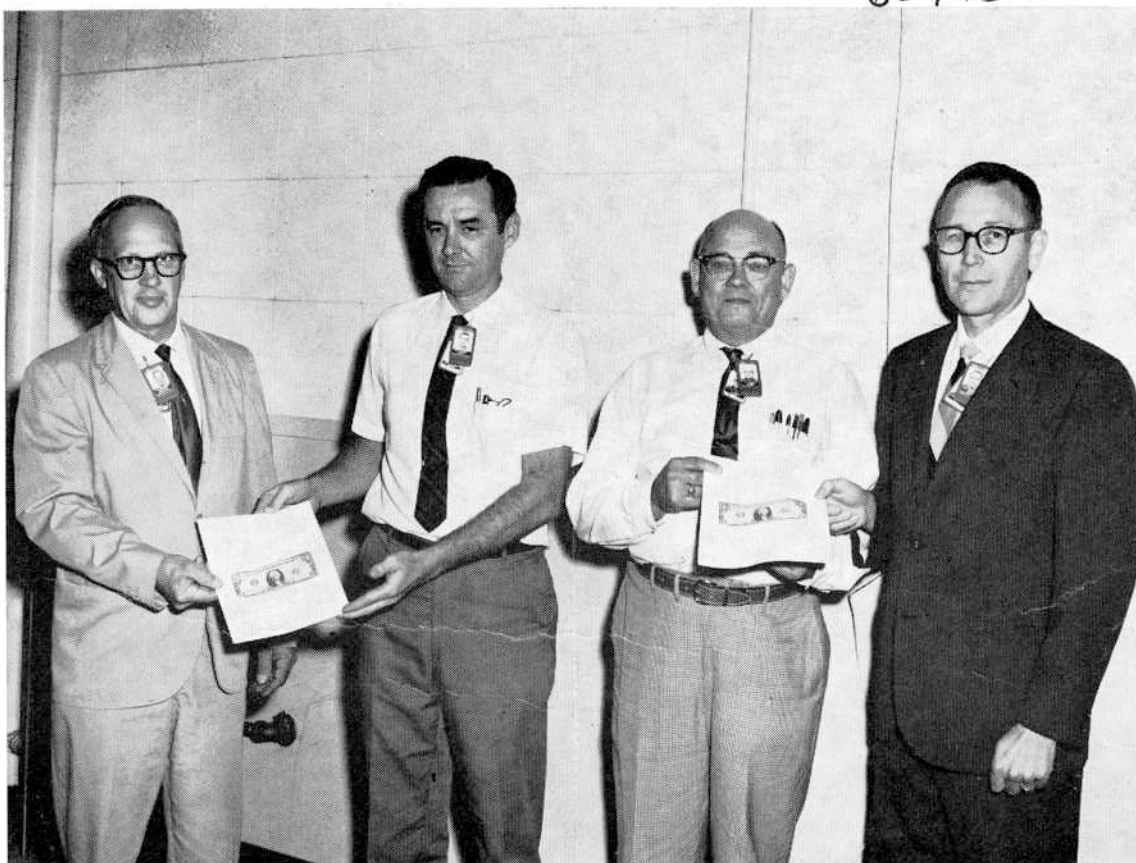
Terrence S. Brown, Max-Plank-Institute for Physics and Astrophysics, Munich, Germany will be a guest at this week's Thernuclear Division seminar. His subject will be "The Dielectric Constant of a Turbulent Plasma."

The seminar is set for 9 a.m. tomorrow, Thursday, September 18, in the TD Conference Room, Building 9201-2.

SAFETY SCOREBOARD

The Y-12 Plant Has
Operated
21 Days Or
670,000 Man-Hours
(Unofficial Estimate)

Through September 14
Without A Disabling Injury
SAFETY AT HOME,
AT WORK, AT PLAY



THE METAL PREPARATION DIVISION recently honored two men in the Alpha Five Processing Department. A. E. Sands and M. E. Scrivner were granted patent applications in the name of the U. S. Government for their joint development, "Rigid Carbon Foam and Process for Manufacturing." They are awarded their commendation letters above. From left are V. B. Gritzner, department superintendent, Scrivner, Sands and Roy D. Williams, superintendent of the division.

Left Turns Illegal Into Lots In P.M.

Regularly some Y-12 wives are still illegally turning into Y-12 parking areas between 4:30 and 5 p.m. West-bound traffic cannot enter any of the portals except Bear Creek and the extreme western parking lot.

Those who persist in turning in are risking their lives as well as others.

DEFINITION

A diplomat is a man who remembers a lady's birthday, but forgets how old she is.

The Bulletin

Published Weekly For The
Y-12 Employees Of
UNION CARBIDE
CORPORATION



NUCLEAR DIVISION

JAMES A. YOUNG Editor

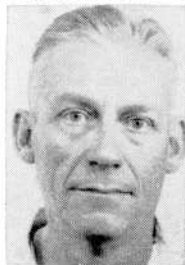


American Association Industrial Editors

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Oak Ridge, Tenn. 37830
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Hays Funeral Held In Alexandria

Funeral services were held Saturday, September 13, in Alexandria, Tennessee for Mr. Charles L. Hays, Research Services. Mr. Hays died at the home of his son William H. Hays, Rogersville, Thursday, September 11.



The Hays home is at 103 Pearl Rd., Oak Ridge. Mrs. Hays was the former Geneva Pistole from middle Tennessee. Another son, Fred M. Hays, Nashville, survives; along with two grandchildren Gary and Melissa Hayes; his mother, Mrs. Nancy A. Hays, Alexandria, and a sister, Mrs. Martin Scott, also of Alexandria.

Mr. Hays worked on a farm near Liberty from 1930-1934. He worked in the grocery business and as a mechanic in the Liberty and Alexandria areas.

Sincere sympathy is extended the Hays family.

Childbirth Class To Begin Tuesday

The Childbirth Education Association of Oak Ridge will begin its fall quarter of classes on Tuesday, September 23, from 7:30 to 9:30 p.m. at the First Methodist Church of Oak Ridge. Mrs. W. K. Brown will coordinate the nine weeks of lectures, discussions, demonstrations, exercises and films.

Mrs. C. R. Gee, president of CEAOR, will conduct the first session and will introduce the association, its purpose and aims. She will speak on the topic of hygiene in the first lecture.

Succeeding weeks will present programs by qualified professionals in their fields on childcare, hospital procedures, conduct of labor, anatomy, physiology and genetics, nutrition and infant nourishment.

Exercise classes will be conducted each week. A doctor's permission in writing is required for these exercise periods, which precede each class.

On October 19, there will be a tea and tour of the Oak Ridge Hospital delivery suite. All pregnant women and their husbands, whether CEA members or not, are invited to this event.

Board members among Y-12 employees' families are Mrs. W. M. Fletcher, Mrs. R. A. Dory, Mrs. R. B. McLees, Mrs. P. J. Steger and Mrs. W. K. Furlong.

DEFINITION

Business is what — when you don't have any—you go out of it.



Mrs. William Horton Rasnick

RASNICK — ELDRIDGE

Miss Sharon Lynn Eldridge was married to Mr. William Horton Rasnick Saturday, August 30, at 4 p.m. The rites, performed by the Reverend Eldridge V. Cullum, were held at the Grace Baptist Church, Karns.

The bride is the daughter of Mr. and Mrs. Roy V. Eldridge, Route 20, Brownvue Drive, Knoxville, and the groom is the son of Mr. and Mrs. William Cecil Rasnick, 104 Hemlock Lane, Bristol.

Gerald R. Eldridge Sr. gave his sister in marriage. Janet Haun provided nuptial music on the organ.

Mrs. Rasnick wore a bridal gown of crystal peau de soie with a yoke of sayetta, trimmed with Viennese lace around the yoke, skirt and neck. Her fingertip veil of illusion was held by a tiara of organza petals with seed pearls and crystals. She carried a nosegay of gardenias, rose buds and lilies of the valley.

Attendants were Mrs. Elizabeth Cruze, matron-of-honor, sister of the bride; bridesmaids, Mrs. June Ellis and Mrs. Ina Lee, both sisters of the bride; Candee Ellis, Janice Cruze and Jennifer Eldridge, all nieces of the bride.

The groom's father served as his best man, and the groomsmen were Robert D. Hagy, and William Kemble III, both of Bristol, and Robert B. Folin Jr., Gate City, Virginia; and Terry Mitchell, Kingsport. Donnie Lee, Rockwood, was his uncle's ringbearer.

A reception honored the couple at the church following the ceremony.

The bride is a graduate of Karns High School, Knoxville Business College, and an alumnus of the University of Tennessee. She is in Y-12's Alpha Five East Shop. The groom graduated from Tennessee High, Bristol, and Duke University where he was a member of the Sigma Chi fraternity. He is working on his master's degree at UT presently. He is a member of the "Penacle Mountain Boys" Band. Mr. Rasnick is in Y-12's Fabrications Systems Development.

After a wedding trip to Myrtle Beach, South Carolina, the couple is at home on Lawnville Road, Kingston.



HETRICK — DONAHUE

Broadway Baptist Church, Knoxville, was the site of the wedding of Miss Linda Joann Donahue and Mr. Thomas Henry Hetrick. They were married Saturday, August 30, at 7 p.m. Dr. Lewis E. Rhodes officiated.

The bride is the daughter of Mr. and Mrs. James R. Donahue, 829 Atlantic Avenue, Knoxville; and the groom is the son of Mrs. J. H. Hetrick, and the late Reverend Hetrick, Jackson, Mississippi. (The bride's father is in Y-12's Casting Department.)

Given in marriage by her father, Mrs. Hetrick chose a gown of full length fashioned of illusion and lace with a fitted bodice. It featured a full skirt and chapel train. The fingertip veil was held by a crown of seed pearls and crystals. She carried a colonial bouquet of white rose buds and a white orchid.

Maid of honor was Miss Brenda Deniston and all other attendants were Miss Terri Brown and Teresa Seivers. They all wore pink nite-light floor length gowns and carried a long-stemmed pink rose each.



Mrs. Thomas Henry Hetrick

Mr. Harvey Hetrick, Jackson, Mississippi, served as his brother's best man. Ushers were Thomas Wilson, Jackson; and David Rolan, Knoxville.

A reception honored the couple at the church immediately after the ceremony.

The couple is at home at the Taliwa Court Apartments, Knoxville.

The new bride is attending the University of Tennessee. The groom is a graduate of Mississippi State University and is working toward his master's degree in zoology at the University of Tennessee.

Y-12ers 'Star' In Motion Picture

A number of Y-12ers play 'starring' roles in a new motion picture entitled "The Safe Handling of Enriched Uranium," most of which was filmed in Y-12.

The 16 mm, sound, color film is approximately 22 minutes long and is unclassified. It was made to acquaint new personnel with the safety principles to be observed in working with enriched uranium. Several hundred Y-12ers have viewed the film thus far.

The movie uses several animated sequences to explain why criticality occurs and how it can be prevented in addition to numerous scenes showing enriched uranium being handled in various plant operations.

The film was written and produced by R. L. Wesley, Technical Information Services. Technical advisors were J. D. McLendon, W. T. Mee, R. H. Pletz and Edward Roberts, Radiation Safety, and W. S. Wallace, Metal Preparation. F. E. Frye, ORNL, and F. W. Hoffman, AEC-ORO, provided most of the new and stock footage used in the film.

Loan copies of the new motion picture may be obtained from R. L. Wesley, 9766, extension 3-5101, or from W. T. Mee, 9711-1, extension 3-5315.

Two Seminars Are Set For This Week

Two seminars are announced for this week from the Physics Division at ORNL. Today, Wednesday, September 17, will feature a joint seminar with W. Mehlhorn, Institut fur Kernphysik, Westfalische Wilhelms-Universität, Munster, Germany. He will speak on the "New Problems and Applications of Auger Electron Spectroscopy."

Friday, September 19, J. P. Schiffer, Argonne National Laboratory, will speak on "Multipole Studies of Two-Body Spectra."

Both seminars are set for 3:15 p.m. in the East Auditorium of ORNL's 4500-N building.

'Open House' Set At O. R. Playhouse

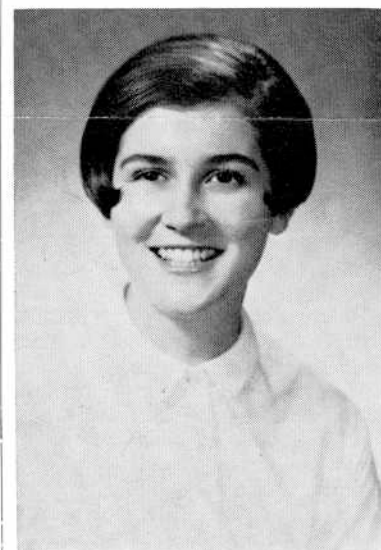
The Oak Ridge Playhouse will launch its 1969-70 season with an Open House, to be held at the Playhouse in Jackson Square Sunday, September 21, from 8 until 11 p.m. The Open House is an annual affair to which area residents are all invited.

A special guest at the year's Open House will be Norman Worrell, executive director of the Tennessee Arts Commission. Guests will have an opportunity to meet Worrell, as well as hear him speak briefly in the theatre auditorium at 8:45 p.m. Members of the Playhouse board of directors and Director Paul Ebert will also be presented at this time.

A continuous tour of the Playhouse — onstage, backstage, and below-stage, will be conducted by members of the board. Those wishing to join the Playhouse, sign on for crew work, or learn about other opportunities for participation in Playhouse activities can obtain the information they need during their visit. Refreshments will be served in the rehearsal room throughout the evening.

Old members, new members, and most especially, non-members are urged to attend the Playhouse Open House, to visit, to see, to learn, and to enjoy.

Cum Laude Grad From Vanderbilt



Cherry Blackburn

Cherry Blackburn, daughter of Mr. and Mrs. John Blackburn, 141 North Alabama Road, Oak Ridge, graduated cum laude from Vanderbilt University, Nashville, in July.

A member of the National Honor Society, she graduated from Oak Ridge High School in 1966.

A psychology major, Cherry spent the summer as a research assistant at Vanderbilt. This fall she will continue her studies in the field of psychology on an assistantship at the University of South Carolina, Columbia, in the doctoral program.

The proud father is in Y-12's Buildings, Grounds and Maintenance Shops.

COLD BRANDING

The red-hot iron used for years to brand animals may soon be a thing of the past. Tests at the Army's Edgewood Arsenal indicate that "freeze" branding can be substituted. It's done with an iron cooled to minus 70 degrees centigrade. The animal suffers no pain or after effects. The branded area is not spoiled for use as a hide. And the animal's hair grows in white on the branded area, providing a high-contrast mark.



THE BIG BRAVES WON the league in Softball play for the season . . . then elected not to participate in the recent tournament. They have a mighty fine year-in-year-out record to boast about. In the front row, from left, are Gary Ellis, D. R. Norris, Steve Babb, Jim Milligan, Ted Lankford and Jack Cowen. Standing are Frank Tuck, Rick Hull, Assistant Manager John Evans, Larry McDonald, Jim Shoemaker and Fred Wetzel. General Manager Bobby Hopkins wasn't there for the photo-making.

Spare Parts Eke Out Mixed Highs

The Spare Parts tore into first place in early rollings in the Y-12 Mixed Bowling League last week after mastering the Mustangs for the full count. Posting three were the Roses 'N Thorns over the Twisters.

The Alley Cats and Hits & Misses shared two . . . as did the Rollers and Goofers.

Bill Sahr, Twisters, tore up the alleys with a 224 scratch, 254 single game. His series of 586 scratch, 676 handicap were high also. Ethel Spray, Spare Parts, put in a 188 scratch, 234 single . . . and a 456 scratch series. Dessie Worley, Roses 'N Thorns, rolled a 618 handicap series.

The Twisters were best in scratch counting . . . singles of 679, series of 1879. The Roses 'N Thorns rolled best handicapwise . . . singles of 848 and series of 2355.

League standings follow:

Team	W	L
Spare Parts	7	1
Rollers	5	3
Twisters	5	3
Roses 'N Thorns	4	4
Alley Cats	3	5
Hits & Misses	3	5
Mustangs	3	5
Goofers	2	6

Reed-Stephens Still Lead Horseshoe Set

With only one more pitch in the season, the Reed-Stephens pair from Y-12 hold a scant lead in the Horseshoe League. Case - Allmon took six points from them last week to move up in second standings.

Also posting six were the Nichols-Norris two over Gray-Copeland.

Forfeit wins went to Wyatt-Wagner over Bailey-Luckett . . . and Bailey-Luckett over Helms-Fowler.

League standings follow:

Team	W	L
Reed-Stephens	44	10
Case-Allmon	41	13
Nichols-Norris	27	27
Durham-Harness	26	19
Wyatt-Wagner	25	20
Gray-Copeland	23	31
Bailey-Luckett	12	42
Helms-Fowler	9	45

Plant precautions everyday — and reap results that really pay.

All Stars Cap Softball Tournament Killing Off Four Big Opponents

The big All Stars took the Softball Tournament last week, as the 17-team competition ran through the perfect weather. The All Stars boasted Larry Brown, Pete Bovine, Iver Jeter, Colon McCarty, Bob Belt, Dick Graham, Ted Burger, Mike Estep, Ken Self, Lewis Alley, Ben Adkin, Dale Legg, Paul Febbo and T. R. Williams.

(The league-winning Braves elected not to play in the tournament.)

The slow climb to fame began for the All Stars, Monday, September 8, on the Milt Dickens Field. They eked by the 69ers 12 to 11 . . . winning in the eighth inning. Larry Brown was the big hero with a homer. . . . John Schultz and Ron Norris homered for the losers.

Meanwhile on the Dickens field the NC Squad took a forfeit victory from the Braves . . . and the Show Ups slipped by the Bat Boys 15 to 14.

Jim Abele, Ralph Horn, Ed Stair and Romeo Greene all poled long homers for the losing team. The only multiple-base hit the Show-Ups had was a double by Jim Hensley . . . but their singles made up the difference, plus 12 big bumbles by the BB's.

At Pinewood, the Colts from K-25 put their fellow plantsmen the Gashouse Gang down politely . . . 11 to 10. Sam Woodfin put the wood to a long one for the Colts.

The Eagles took their first victory . . . a forfeit win from the Beta 2 Miners.

At the New Jefferson field, it was the Buccaneers over the J-Birds 9 to 6 . . . as R. Soard socked a big one over the fence . . . along with a triple to aid the winning cause.

Ron Meyers nailed a homer down for the losers.

The Snakes edged by the Yankees 12 to 10, as they earned 16 hits to the Yanks' 14.

Billy Patrick and Jim Davis homered for the unlucky Yankees.

To end a perfect night of close ones, the Go Go Gophers gained a foot up by taking the Big Shops 12 to 11.

The Gophers out-hit the Shops

by two . . . and errors were registered, four for the BS and three for the Gophers.

The second big night of action saw four more teams drop from the single elimination action.

At Oakwood the All Stars barely made it by the Colts from down K-25 way . . . 8 to 7 . . . scoring four big runs in the final inning.

Steve Cates and Harold Conners knocked homeruns for the K-25 combo, but they weren't enough.

The Eagles, led by manager Hugh Richards, took the Go Go Gophers 22 to 7 in a no-contest to finish action at Oakwood Tuesday.

The high-flying Eagles claimed 23 big hits . . . to 10 for the Gophers.

At Pinewood Tuesday it was the Buccaneers beating the NC Squad (but barely) by a score of 8 to 6.

Ron Marcum tripled and homered for the Squad, but the big first inning of play in which the Buc's scored six runs was too much.

The Snakes skunked the Show Ups to the tune of 28 to 0 in final play at Pinewood. (In other words . . . 'How'd you get this far in the tournament?')

Homers were taken by Horance Moorman (three!), Earl Nall, Charlie Dinkens, and Jerry Harris . . . all for the victorious Snakes.

The semi-finals saw the All Stars Wednesday take the Buccaneers 13 to 6. Inning number five proved the big moment for the Stars, as they crossed the plate six times to put the game on ice.

The Snakes and Eagles contest turned into a duel . . . with the Eagles taking a lead and holding on to it for the duration of the game. Ron Greene homered for the Eagles as they won the contest 13 to 6.

Thus the Eagles and All Stars faced each other for their second game each of the night.

The All Stars won the fight 14 to 10. Larry Brown, Iver Jeter and Colon McCarty all homered for the Stars, as they hit only 15 to the Eagles' 17. A total of five mis-

Bumpers, 8 Balls Take Classic Tops

The Bumpers and Eightballs, after four-point wins last week, share the top of the Classic Bowling League. The Bumpers belted the Eagles and the Eightballs tore up the All Stars. Other four-point wins went to the Rebels past the Pinbusters and the Splinters over the Swingsters.

Taking three were the Rippers by the Playboys, the Has Beens by the Screwballs. Sharing two were the Cubs and Tigers and the Smelters and Markers.

Lawrence Sikes, Rebels, rolled a 248 game! Elmer Johnson, Splinters, put in a 261 handicap single. Bill Ladd, Eightballs, rolled a 674 scratch series . . . and Elmer Johnson, Splinters rolled a 701 handicap series! (How's that for individual highs?)

The Rebels routed the rest of the league in singles . . . 950 scratch . . . 1064 handicap. Series honors went to the Bumpers with 2701 scratch . . . and the Splinters with 3024 handicap.

League standings follow:

Team	W	L
Bumpers	7	1
Eightballs	7	1
Rippers	6½	1½
Cubs	6	2
Rebels	6	2
Playboys	5	3
All Stars	4	4
Smelters	4	4
Has Beens	4	4
Splinters	4	4
Markers	3½	4½
Tigers	3	5
Swingsters	2½	5½
Screwballs	1	7
Pinbusters	½	7½
Eagles	0	8

Wright-Stewart Are Melton Top Golfers

Mack Wright not only finished in the top with partner Herman Stewart, but also carded low scores at Melton Hill Golf League for the final day of the greens. His 35 scratch, 32 handicap score was low. They defeated Gresham-Brown in paired play. Also taking six were Riggs-McElroy over Winstead-Ferguson, Tiller-Clabough over Parrott-Parker, and Alvey-Phillips by the Sewells. Forfeit wins to Pryson-Ellis, Carter-Waldrop over Helton-Hill and Roberts-Cook respectively.

Posting five were the Babb-Baker two over Tuck-Wetzel . . . and taking four were Sherrod-Wyrick over Morehead-Poly.

Final standings follow:

Team	W	L
Wright-Stewart	71	31
Riggs-McElroy	69	33
Babb-Baker	67	35
Tuck-Wetzel	66	36
Parrott-Parker	62	40
Tiller-Clabough	62	40
Alvey-Phillips	61	41
Gresham-Brown	59	43
Sherrod-Wyrick	52	50
Helton-Hill	49	53
Sewell-Sewell	44	58
Pryson-Ellis	44	58
Wright-Redding	42	60
Ferguson-Winstead	41	61
Nixdorf-Holdaway	40	62
Morehead-Poly	39	63
Carter-Waldrop	33	69
Roberts-Cook	17	85

Roberts Has Application To ABC Bowling Tourney

Roy Roberts, league secretary in the Classic and C Bowling leagues, can take applications for entries in the American Bowling Congress bowling tournament. The big national event is set in Knoxville beginning in March, 1970.

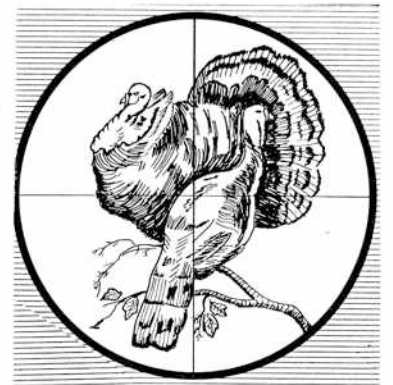
The deadline for entering is early November.

Roy can supply you with information and entry blanks.

You can see him Mondays and Thursday at the lanes.

cues by the Eagles did not help the team any, however.

That's the Softball action for 1969. You folks come again!



Turkey Shoot Set Saturday By Shifters

Some 40 relays will be the big feature of E, F, G, H and J Shift's big Turkey Shoot this Saturday, September 20. Firings get underway at 10 a.m. at the Oak Ridge Sportsmen's Association range, and go for 25¢ a crack. Only 12, 16 and 20 gauge shotguns are allowed.

All Y-12ers and members of their families are invited, of course . . . just bring a badge along. (Wives in Y-12 may, naturally, bring non-employee husbands.)

Bring the kids, too, say the Shifters . . . they'll get a bang out of a turkey shoot!

Recreation



Saturday, September 20

TURKEY SHOOT: E, F, G, H and J Shift-sponsored. All Y-12ers and families invited. 10 a.m. Oak Ridge Sportsmen's Association range. 25¢ a shot.

Monday, September 22

BOWLING: C League, 5:45 p.m. Ark Lanes.

Tuesday, September 23

PHYSICAL FITNESS (For Men): 7-9 p.m. Oak Ridge High School Gym.

Wednesday, September 24

BOWLING: Mixed League, 8 p.m. Ark Lanes.

Thursday, September 25

BOWLING: Classic League, 5:45 p.m. Ark Lanes.

Sise-Lead Big 5 Team Waxes Hot!

Ed Sise fired his Big Five team on to greater heights last week as the big C League hit the maples to be the third big league in the water on the lanes. The Big Five walloped the Royal Flush for the full count of four . . . as they swept all team honors 921 scratch, 1026 handicap in singles . . . 2718 and 3033 in handicap.

Dick Huber, Badgers, managed to keep another name on the honor roll for the week, posting individual high series . . . 630 scratch, 678 handicap . . . which proves good in anybody's league.

Other matches saw the Badgers beat the Sunflowers for four, too.

The HiLifers had it past the Fireballs for three . . . and the Parbusters busted the Instrument Engineers; the Rounders routed the Anodes and the Rollmasters rolled past the Go Go Gophers for the same.

League standings follow:

Team	W	L
Big Five	4	0
Badgers	4	0
HiLifers	3	1
Parbusters	3	1
Rounders	3	1
Rollmasters	3	1
Go Go Gophers	1	3
Anodes	1	3
Instrument Engineers	1	3
Fireballs	1	3
Sunflowers	0	4
Royal Flush	0	4

One careless blunder can plow you under.



BRUNHILDA, NOTED FOXHOUND, sports her nuclear-powered cardiac pacemaker before the National Institutes of Health building at Bethesda, Maryland. The pacemaker is designed to serve the dog for at least 10 years . . . more than five times longer than most conventional artificial pacemakers.



September rolls by with its balmy days, as more Y-12ers roll past important dates with Union Carbide Corporation. Congratulations.

25 YEARS

August T. Sharp, General Machine Shop, September 18.

William T. Galyon, Fire Department, September 18.

Susie M. McMullen, Building Services Department, September 21.

Charles E. Gillihan, SS Material Control, September 22.

20 YEARS

Harrison Raper Jr., Buildings, Grounds and Maintenance Shops, September 17.

Ova C. Duck, General Machine Shop, September 19.

15 YEARS

Jesse A. Shell, Timekeeping Department, September 17.

Russell C. Blevins, Electrical and Electronics Department, September 20.

William L. Goodwin, Electrical and Electronics Department, September 20.

Richard V. Anderson, Electrical and Electronics Department, September 20.

Harold D. Scarbrough, Stores Department, September 22.

Joe B. Tallent, Utilities Administration, September 23.

10 YEARS

George C. Keller, 9766 Machine Shop, September 21.

James F. Vance, Tool Grinding, September 21.

Perry G. Hockaday, General Shop Job Liaison, September 21.

Joe E. Coleman, Tool Grinding, September 21.

Ernest L. Underwood, H-2 and F-Area Shops, September 22.

IN YOUR EYES

It may be that all the cigarette warnings are getting to be a bit much. A bank robber slipped a note to a teller the other day that read: "Give me all your money or I will blow smoke in your face."

Foxhound Enjoys Excellent Health After Pacemaker Implant Operation

The first dog to receive a nuclear-powered cardiac pacemaker now shares the distinction with two other foxhounds. The pacemakers were implanted recently at the National Heart Institute of the National Institutes of Health, Bethesda, Maryland, where the first implant was made in May.

Even with her pacemaker, Brunhilda, seen in the accompanying photograph, needs the stimulation of a walk around the grounds of the Institute.

Electrocardiograph examinations given regularly to Brunhilda show that she is as healthy as she was before the implant and that the pacemaker is performing according to specifications. Preliminary reports concerning the two most recent canine recipients are also favorable.

The nuclear-powered pacemaker is designed to operate for at least 10 years. It is about two-thirds the size of a pack of cigarettes and weighs three and one-half ounces. Most conventional artificial pacemakers must be re-

placed frequently, usually within two or three years of the original implantment.



Ride wanted from vicinity of Rocky Hill School, Knoxville, to West Portal, straight day. H. M. Jeffreys, plant phone 3-5244, home phone Knoxville 584-3617.

Ride wanted, or riders accepted, or will join car pool from I-40, Bearden exit, Knoxville, to any portal, J Shift. H. A. Hanna, plant phone 3-5291, home phone Knoxville 589-7879.

Ride wanted from UT area, Knoxville, to Biology Portal, straight day. J. M. McEver, plant phone 3-7671, home phone Knoxville 525-3381.

Ride wanted, or will join car pool from Cumberland Estates, Knoxville, to North Portal, straight day. Phil King, plant phone 3-5112, home phone Knoxville 588-5170.

Riders wanted from Norwood section, Knoxville, to West Portal, straight day. C. M. Voekel, plant phone 3-7433, home phone Knoxville 689-5952.

Ball-Leach Nail Both Halves-Whittles Golf

J. D. Ball and Red Leach repeated their victory and took the second half of the Whittle Springs Golf League (they had won the first half). Jack Cowen and Sam O'Neal took second place . . . sharing honors with J. D. Hensley and M. J. Tharpe who won the second place in the first half.

In the final week of action Norris-Smeltzer won five from Troutman-Chitwood . . . and Cowen-O'Neal took Ball-Leach for four . . . as did Wilson-Norris over Hensley-Tharpe.

Ball and Cowen turned in scratch scores of 40. Jack's 32 handicap was low . . . and he posted five pars on the first nine holes.

Final standings follow:

Team	W	L
Ball-Leach	28	8
Cowen-O'Neal	26	10
Norris-Smeltzer	19	17
True-Poe	14	22
Wilson-Norris	14	22
Hensley-Tharpe	13	23
Troutman-Chitwood	12	24

Gymnast Classes Planned For Teachers

The Oak Ridge Gymnastics Club has scheduled a series of sessions on the teaching of gymnastics primarily for parents interest in a program for their children. These sessions are to be held at 7 p.m. each Tuesday and Wednesday for the remainder of September in the Girls' Gymnasium of the Oak Ridge High School. A children's gymnastics program will be offered on Wednesday at the Girls' Gym beginning October 1.

More details may be obtained from Val Liasa at Oak Ridge telephone 483-7989, or from Jack Harvey, at extension 3-1967.

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Spring, Summer Fishing Winners!

The Spring and Summer fishing rodeo among Y-12 Isaac Waltons ends with big winners announced last week by the Recreation Department.

Two awards went begging as third prizes in the bream or bluegill category and in the rainbow trout species were not awarded due to a lack of entries.

However, eight big species did cop prizes . . . as follows:

SMALLMOUTH BASS

1. C. L. McCarty, Assembly Operations.
2. Clay Smith, Physical Testing.
3. J. P. Grubb, Chemical Services.

LARGEMOUTH BASS

1. Elmer E. Green, Buildings, Grounds and Maintenance Shops.
2. William E. Webb, Utilities.
3. William R. Jago, Process Maintenance.

STRIPED BASS

1. F. D. Marler Sr., Chemical Services.
2. H. M. Monday, General Machine Shop.
3. J. C. Bryan, Chemical Services.

BREAM, BLUEGILL

1. H. N. Benninghoff, Shift Superintendents.
2. H. A. Price, Dispatching.

SAUGER PIKE

1. J. W. Graves, Chemical Services.
2. W. G. Story, H-1 Foundry.
3. Jim O'Kain, Electrical Engineering.

WALLEYED PIKE

1. John S. Orr, Area Five Maintenance.
2. Elbert Scott, Guard Department.
3. E. W. Forbes, Beta Two Shop.

RAINBOW TROUT

1. J. W. Gossage, General Machine Shop.
2. Joe Jackson, SS Warehousing & Shipping.

No weights or measurements are given on the above fish since many are also entered in the Annual Fishing Rodeo. For the rest of the year, fishermen may enter their catches in the annual contest. These do, however, require a photo of the fish, along with the necessary affidavits from witnesses. Forms for the annual contest are available in the Recreation Office.

The Recreation Department will telephone the winners in this contest when their awards are ready to be picked up.

Wantland Will Speak On Steam Automobiles

The Oak Ridge Subsection of the American Society of Mechanical Engineers will meet tomorrow, Thursday, September 18, at the Elk's Club on Arkansas Avenue, Oak Ridge. The meeting will begin at 7 p.m. with a social hour, and the program will start at 8 p.m.

John L. Wantland, research staff member of the Reactor Division of the Oak Ridge National Laboratory, will speak on "Steam Engines and Steam Cars — Then and Now."

Googin Speaks On New Material



John M. Googin

John M. Googin, senior staff consultant for the Nuclear Division, will speak to the Oak Ridge Chapter of the Tennessee Society of Professional Engineers, tomorrow, Thursday, September 18, at the Alexander Motor Inn.

The meeting begins with a social hour at 6:30 p.m. . . . dinner at 7:30. Cost of the dinner is \$3.25 and reservations may be made through Fred Stout, extension 3-3677.

Googin's topic will be "New Materials."

All wives and friends of TSPE are invited to tomorrow's meeting.

Retired Persons Plan Trip To Local Cave

The Oak Ridge area chapter of the American Association of Retired Persons is sponsoring a trip to the Cavern of the Ridge, Friday, September 26, at 10:30 a.m. A picnic lunch will be served at Clark Center Park after the trip through the caverns. The cost is \$2.50 and should be forwarded to Mrs. Ben Addison, 203 East Tennessee Avenue, by September 23. At the September meeting transportation for those who do not drive will be arranged.

The monthly meeting of the AARP-NRTA will be held in the Green Room of the Ridge Hall, tomorrow, Thursday, September 18 at 1:30 p.m. Persons over the age of 55 in this area are eligible for membership.

CAPABLE CABLE

Sewing machines, stage lights, mine drills, welding apparatus, floor polishers, harbor dredges, power shovels, and hundreds of other pieces of equipment which are essential to modern industry need electrical cable that can take a beating to avoid costly breakdowns. Chemical progress found the answer. If you like scientific mouthfuls, it's a vulcanized, colloidal dispersed blend of acrylonitrile rubber and polyvinyl chloride resin. In layman's language, it's a tough cable covering that remains flexible in temperature ranging from minus 35 degrees to plus 167 degrees Fahrenheit.